



University
of Glasgow

Final Year Projects at SIT-UofG

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University of Glasgow Singapore



- In partnership with Singapore Institute of Technology (SIT)
- Delivers undergraduate programmes in:
 - Mechatronics and Mechanical Design Engineering (2011)
 - Aerospace Systems and Aeronautical Engineering (2012)
 - Computing Science (2013)
- Deliver in-country undergraduate honours degree programmes to the same high standard as those of University of Glasgow in the UK
- Develop research and development collaboration with industry and other organisations in Singapore

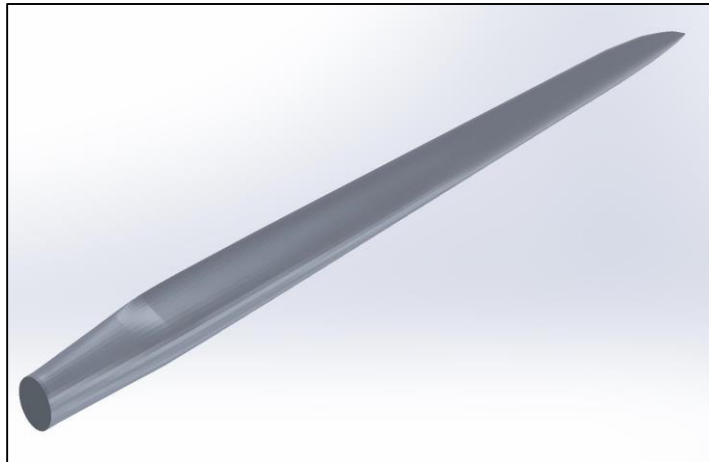
Integrating Research into Teaching: Final Year Projects using Finite Element Analysis



Single Cylinder Diesel Engine

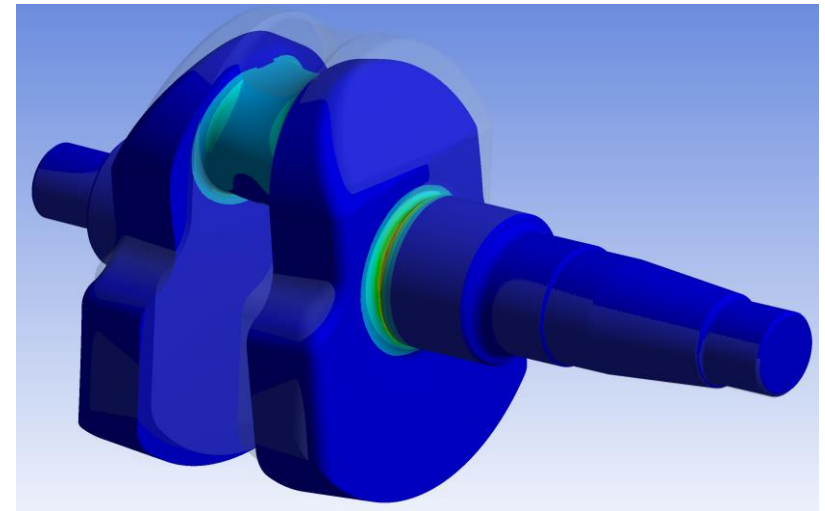
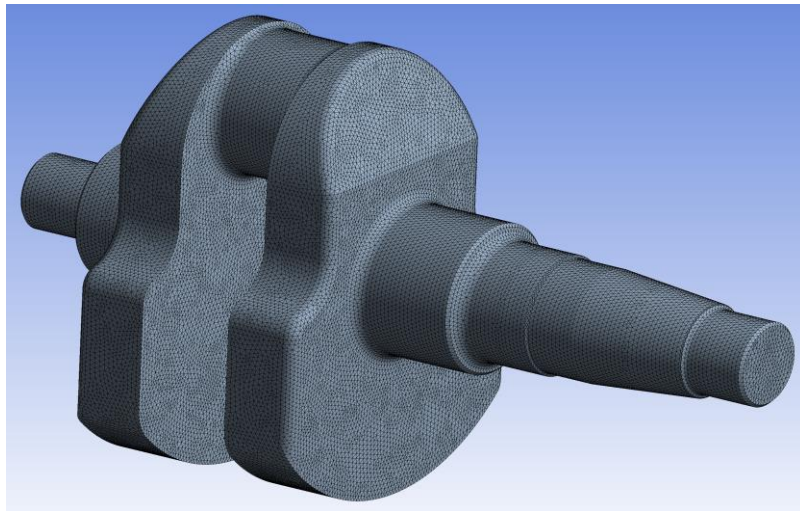
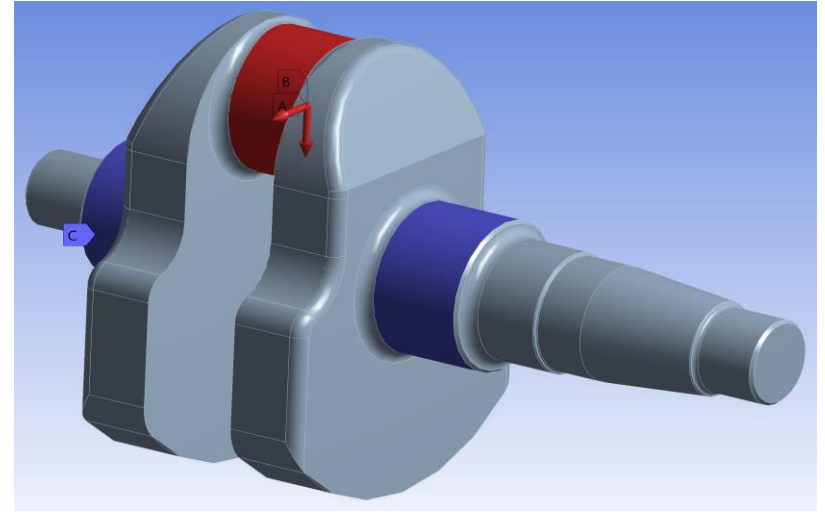
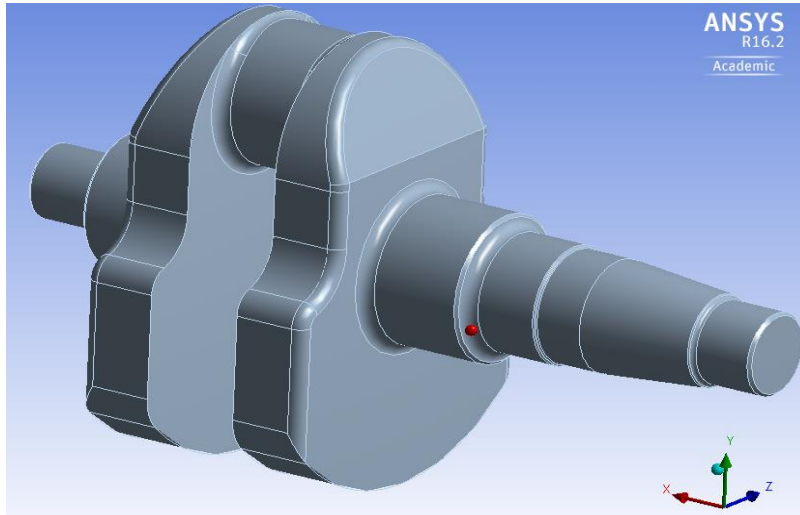


Articulated Bus

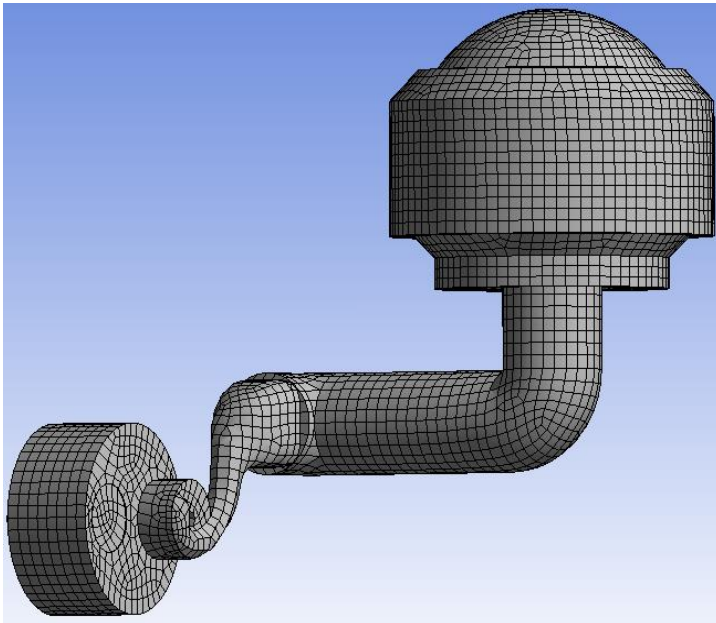
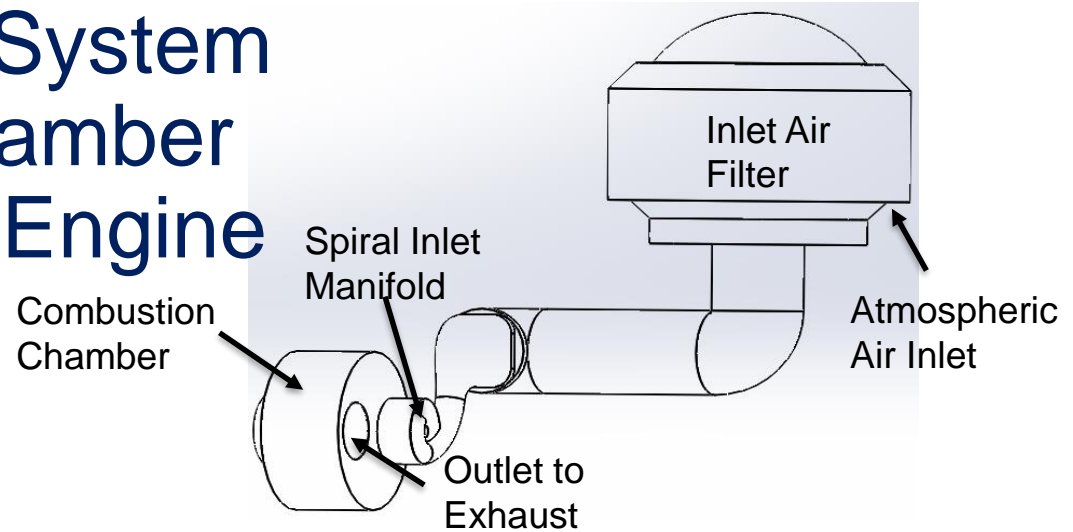


Wind Turbine Blade

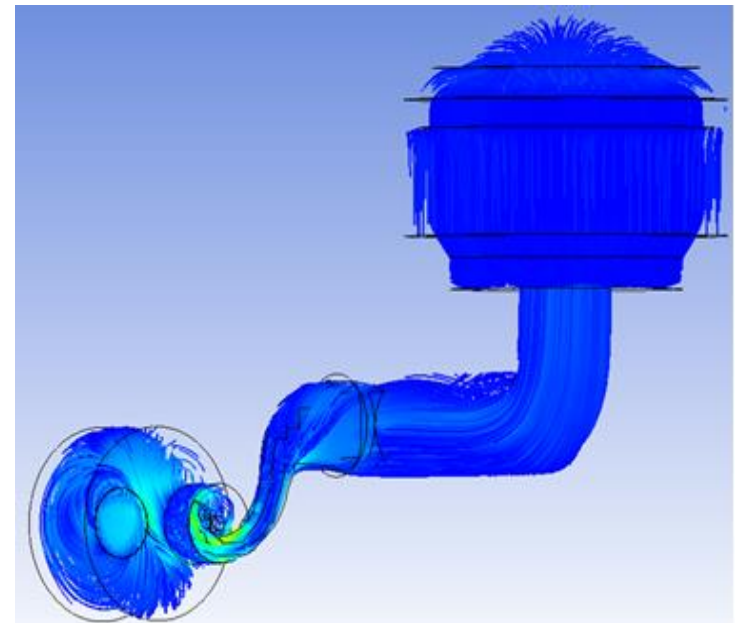
FEA: Crankshaft of a Single Cylinder Diesel Engine



CFD Analysis: Inlet System and Combustion Chamber of a Single Cylinder Engine

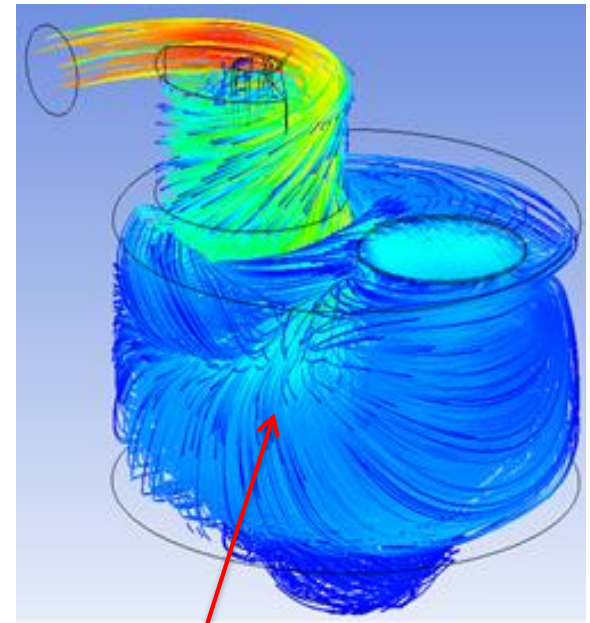
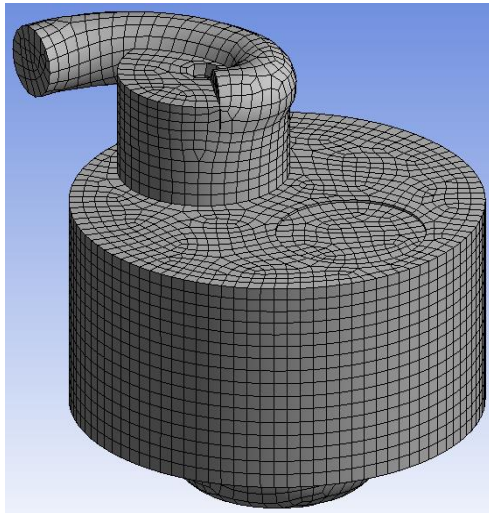
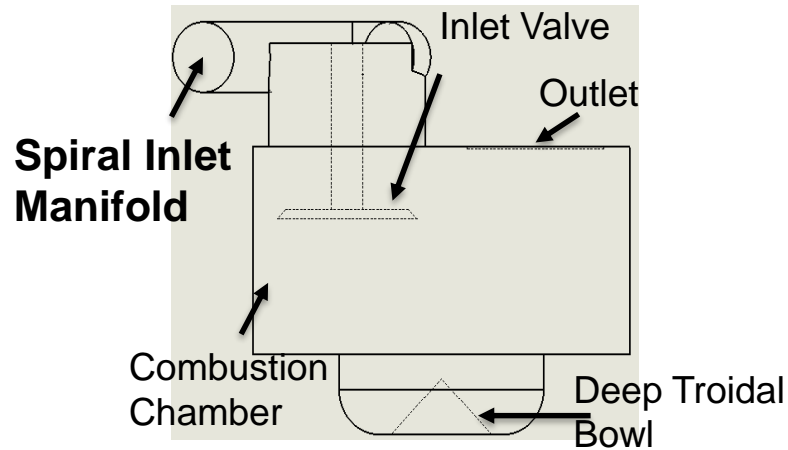


Meshing

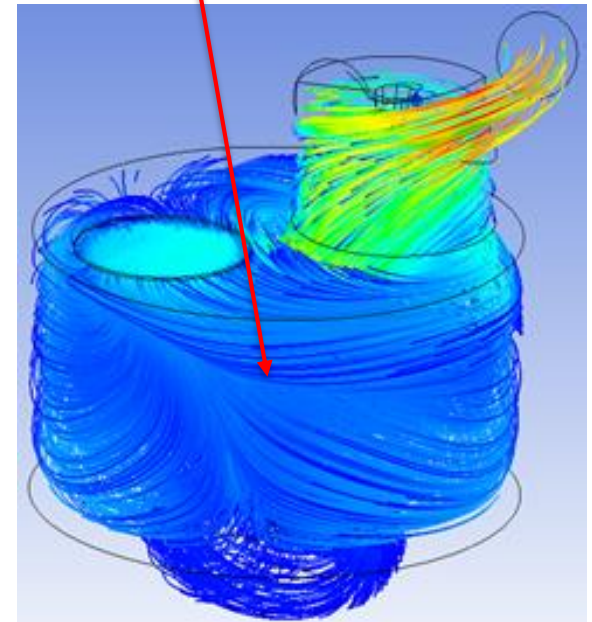


Post-Processing

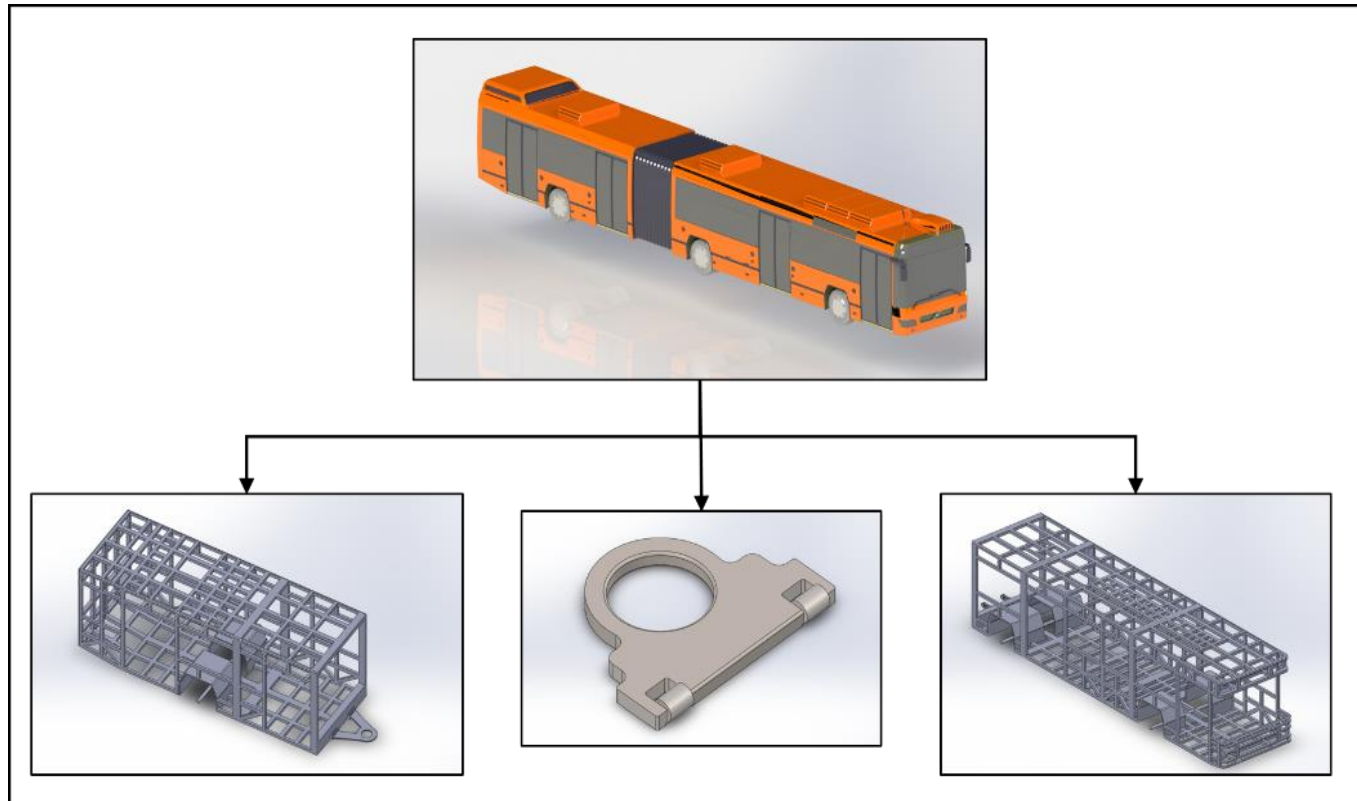
CFD Analysis: Combustion Chamber



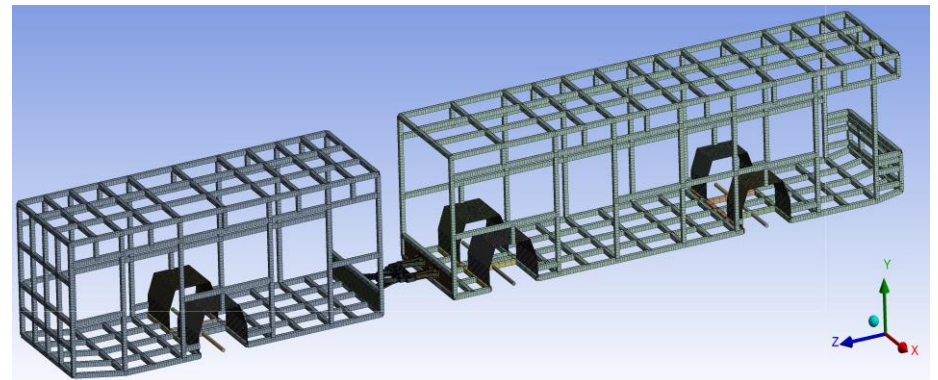
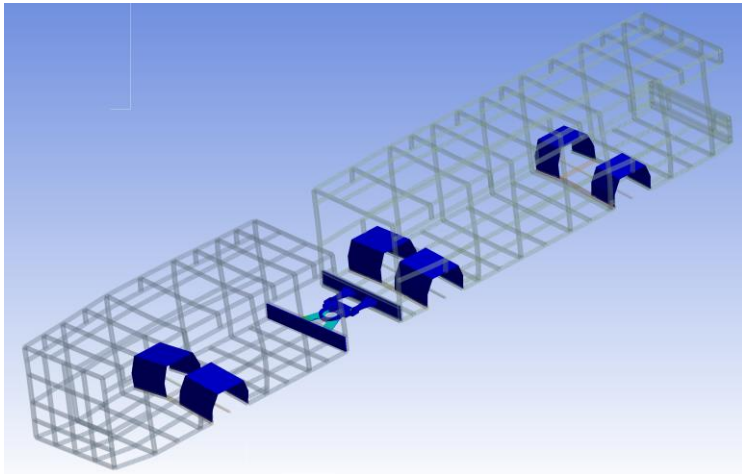
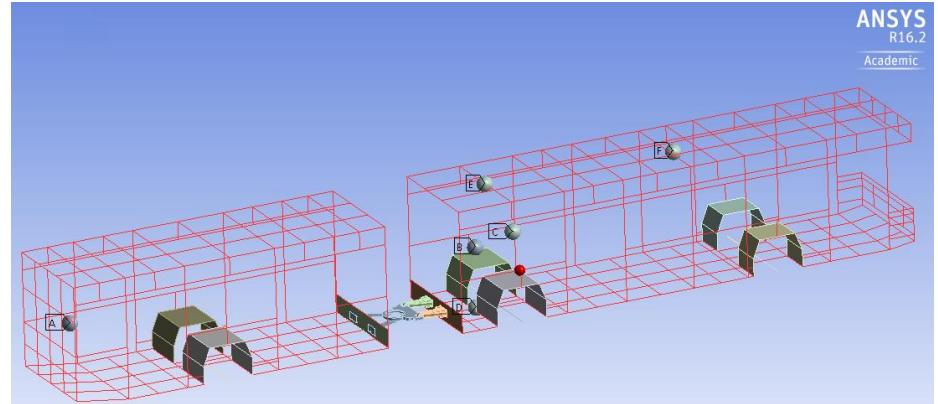
Random Air Motion



Finite Element Analysis of an Articulated Bus



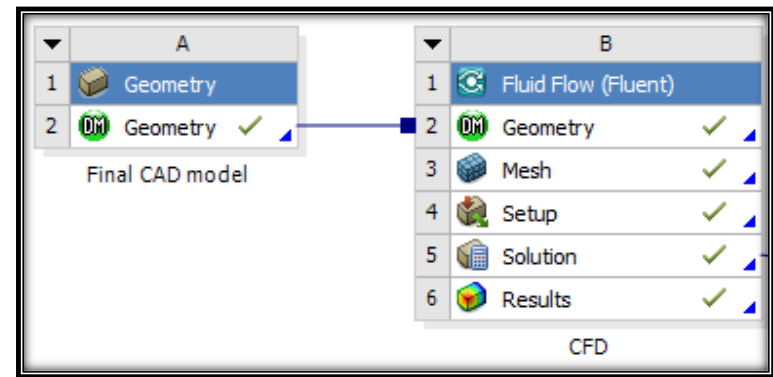
Finite Element Analysis of an Articulated Bus



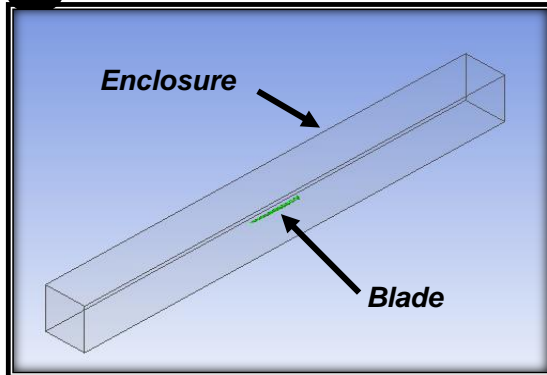
Fluid-Structure Interaction of a 100m Wind Turbine Blade



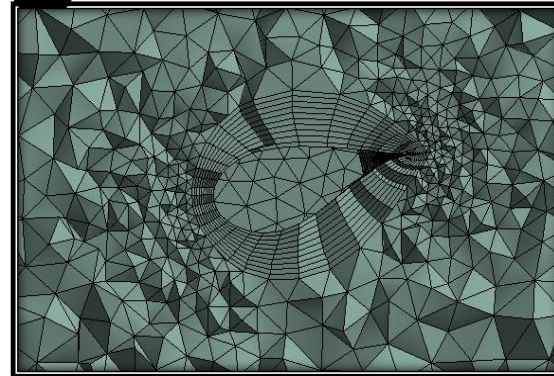
CFD Analysis of WTB



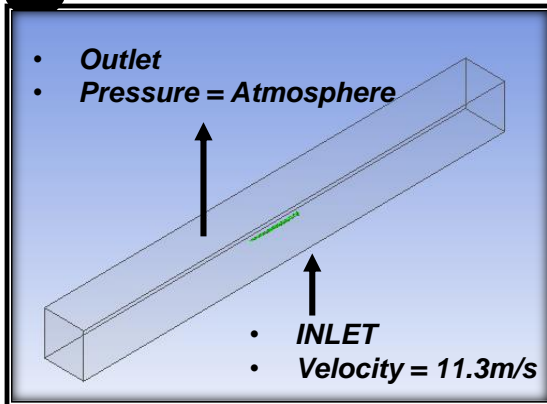
1 Creating Fluid Medium



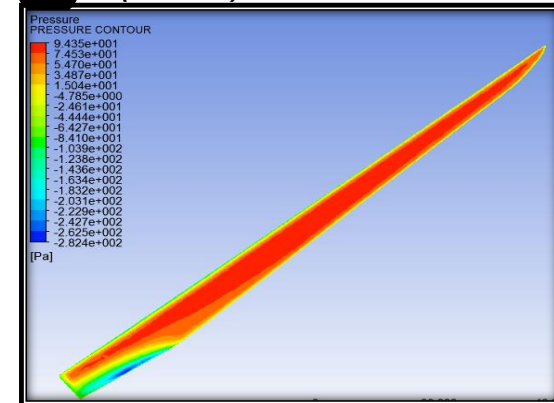
2 Mesh of boundary Layer



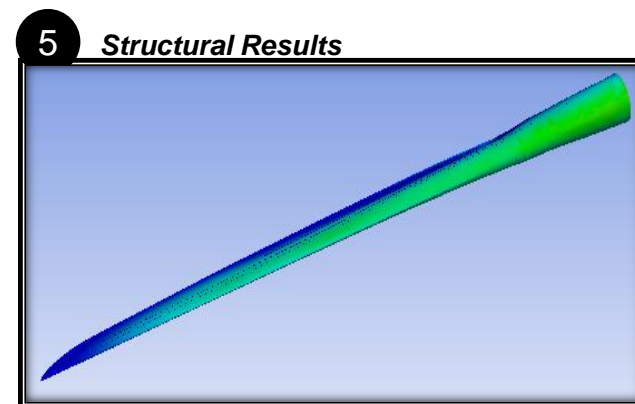
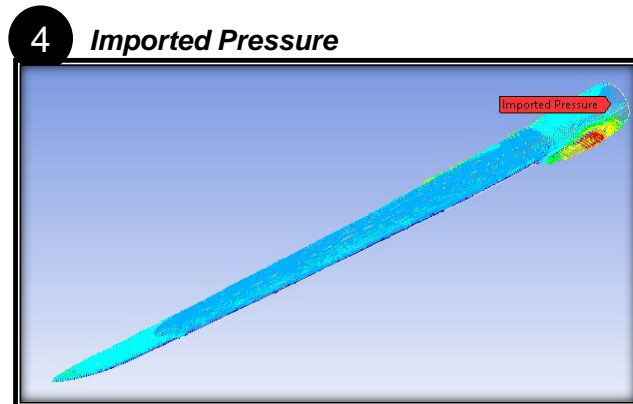
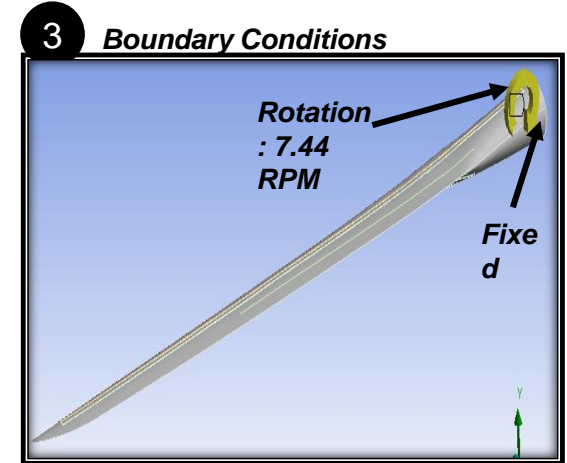
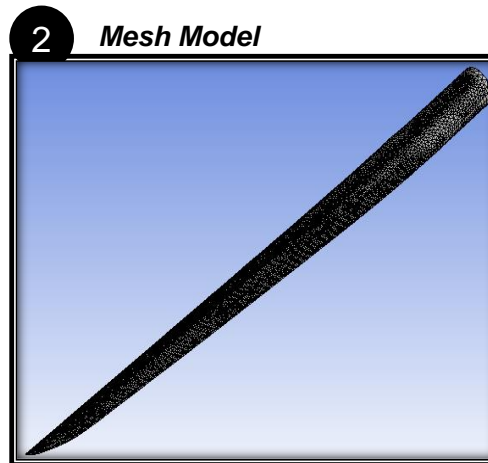
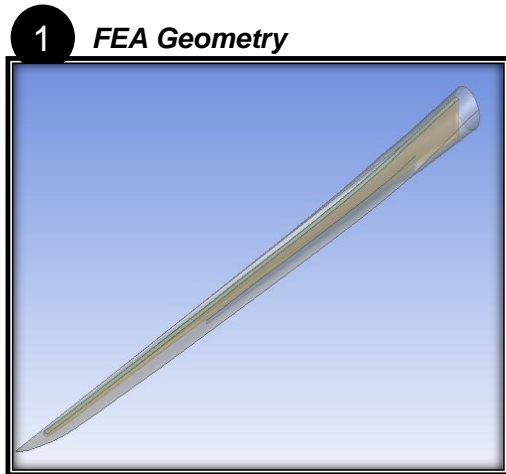
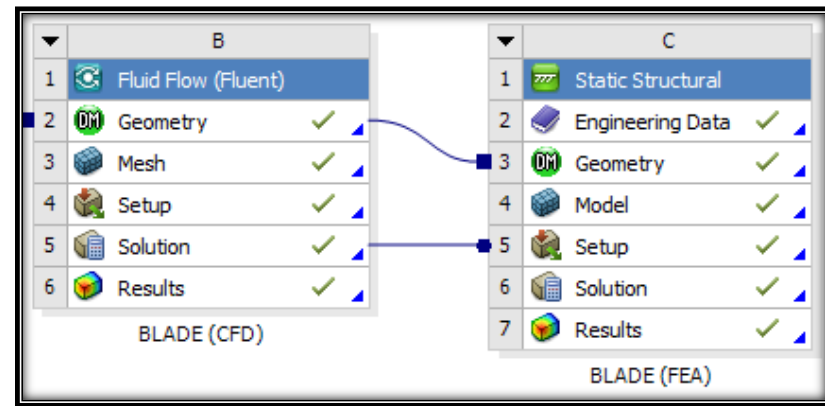
3 Defining Boundary Conditions



4 Pressure Distribution (Results)



One-Way FSI





Thank You